

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1–19 (Cancelled).

20. (Currently amended) A method for the production of modified endosperm, which comprises the step of introducing a nucleic acid molecule into a plant, the nucleic acid molecule comprising ~~one or more regulatory sequences directing expression in a promoter that targets expression to female germ line cells and a sequence whose transcription product comprises a partial or full-length *Arabidopsis MET4*DNA methyltransferase 1 (Met1) sequence, wherein the introduced nucleic acid is effective for down-regulating one or more DNA methylating enzymes present in the plant, whereby the degree of DNA methylation of nucleic acid in the plant is reduced as compared to a control plant.~~

21. (Previously presented) A method as claimed in claim 20 wherein the transcription product comprises an antisense nucleic acid.

22. (Cancelled)

23–61. (Cancelled).

62. (~~Previously presented~~Currently amended) A method for the production of modified endosperm, which comprises the step of introducing a nucleic acid molecule into a plant, the nucleic acid molecule comprising ~~one or more regulatory sequences directing expression in a promoter that targets expression to female germ line cells and a sequence whose transcription product comprises a partial or full-length *Arabidopsis MET4*DNA methyltransferase 1 (Met1) sequence, wherein the introduced nucleic acid is effective for down-regulating one or more DNA methylating enzymes present in the plant, whereby the degree of DNA methylation of nucleic acid in the plant is reduced as compared to a control plant.~~

product comprises a partial or full-length *Z. mays* sequence orthologous to the *Arabidopsis MET1* DNA methyltransferase 1 (Met1) sequence, wherein the introduced nucleic acid is effective for down-regulating one or more DNA methylating enzymes present in the plant, whereby the degree of DNA methylation of nucleic acid in the plant is reduced as compared to a control plant.

63. (Previously presented) A method as claimed in claim 62, wherein the transcription product comprises an antisense nucleic acid.

64. (Previously presented) A method as claimed in claim 20, wherein the plant is a dicotyledonous plant.

65. (Previously presented) A method as claimed in claim 20, wherein the transcription product down-regulates one DNA methylating enzyme.

66. (Previously presented~~Currently amended~~) A method as claimed in claim 20, wherein the transcription product comprises a full or partial sense copy of the *Arabidopsis* DNA methyltransferase 1 (Met1) sequence~~a DNA methylating enzyme gene already present in the plant~~.

67. (Previously presented) A method as claimed in claim 66, wherein the sense copy is a partial sense copy.

68. (Cancelled).

69. (Previously presented~~Currently amended~~) A method as claimed in claim 62, wherein the transcription product comprises a full or partial sense copy of the *Z. mays* sequence~~a DNA methylating enzyme gene already present in the plant~~.

70. (Cancelled)

71. (Previously presented) A method as claimed in claim 66, wherein the plant is a dicotyledonous plant.

72-75. (Cancelled)

76. (Previously presented) A method as claimed in claim 72, wherein the plant is a dicotyledonous plant.

77. (Previously presentedCurrently amended) A method as claimed in claim 20, wherein the ~~one or more regulatory sequences direct promoter targets~~ expression in female gametic cells.

78. (Previously presented) A method as claimed in claim 77, wherein the transcription product comprises an antisense nucleic acid.

79. (Cancelled)

80. (Previously presentedCurrently amended) A method as claimed in claim 77, wherein the transcription product comprises a partial sense copy of the *Arabidopsis* DNA methyltransferase 1 (Met1) sequence a DNA methylating enzyme already in the plant.

81. (Previously presented) A method as claimed in claim 77, wherein the plant is a dicotyledonous plant.

82. (Previously presented) A method as claimed in claim 77, wherein the plant is a monocotyledonous plant.

83. (New) A method as claimed in claim 81, wherein the plant is a *Brassica* plant.
84. (New) A method as claimed in claim 81, wherein the plant is a *B. napus* plant.
85. (New) A method as claimed in claim 82, wherein the plant is a *Zea mays* plant.
86. (New) A method as claimed in claim 62, wherein the promoter targets expression to female gametic cells.
87. (New) A method as claimed in claim 86, wherein the transcription product comprises an antisense nucleic acid.
88. (New) A method as claimed in claim 86, wherein the transcription product comprises a partial sense copy of the *Z. mays* sequence orthologous to *Arabidopsis* DNA methyltransferase 1 (Met1) sequence.
89. (New) A method as claimed in claim 86, wherein the plant is a dicotyledonous plant.
90. (New) A method as claimed in claim 86, wherein the plant is a monocotyledonous plant.
91. (New) A method as claimed in claim 89, wherein the plant is a *Brassica* plant.
92. (New) A method as claimed in claim 89, wherein the plant is a *B. napus* plant.
93. (New) A method as claimed in claim 90, wherein the plant is a *Zea mays* plant.